14th Marcel Grossman Meeting On Recent Developments in Theoretical and Experimental General Relativity, Astrophysics and Relativistic Field Theories, Proceedings, 2018, pages 2216-2220

Electrodynamic phenomena in a dark fluid flow

Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

Copyright © 2018 by the Editors.All rights reserved. We consider dark fluid as a medium, which acts indirectly on cosmic electromagnetic fields of all types. We develop mathematical models for dark analogs of pyromagnetic, piezomagnetic and dynamo-optical effects, magnetostriction and optical activity in minimal and nonminimal versions.

Keywords

Axion electrodynamics, Dark fluid, MG14 Proceedings

References

[1] B.W. Bestbury, J. Phys. A 36, 1947 (2003).
[2] E.J. Copeland, M. Sami, and S. Tsujikawa, IJMP D 15, 1753 (2006).
[3] V. Sahni and A. Starobinsky, IJMP D 15, 2105 (2006).
[4] M.S. Turner, Phys. Rept. 197, 67 (1990).
[5] G.G. Raffelt, Phys. Rept. 198, 1 (1990).
[6] S. Nojiri and S.D. Odintsov, Phys. Rept. 505 59 (2011).
[7] A.B. Balakin and L.V. Grunskaya, Rept. Math. Phys. 71, 45 (2013).
[8] A.B. Balakin and Wei-Tou Ni, Class. Quantum Grav. 31, 105002, (2014).
[9] A.B. Balakin and W.-T. Ni, Class. Quantum Grav. 27, 055003 (2010).
[10] A.B. Balakin, V.V. Bochkarev and N.O. Tarasova, EPJ C 72, 1895 (2012).
[11] A.B. Balakin and N.O. Tarasova, Gravit. Cosmol. 18, 54 (2012).
[12] A.B. Balakin and V.V. Bochkarev, Phys. Rev. D 83, 024035 (2011).
[13] A.B. Balakin and V.V. Bochkarev, Phys. Rev. D 83, 024036 (2011).
[14] A.B. Balakin and V.V. Bochkarev, Phys. Rev. D 87, 024006 (2013).
[15] A.B. Balakin, V.V. Bochkarev, J.P.S. Lemos, Phys. Rev. D 85, 064015 (2012).
[16] A.B. Balakin and N.N. Dolbilova, Phys. Rev. D 89, 104012 (2014).
[17] A.B. Balakin and T.Yu. Alpin, Gravit. Cosmol. 20, 152 (2014).
[18] T.Yu. Alpin and A.B. Balakin, Gravit. Cosmol. 12, 307 (2006).
[19] A.B. Balakin and J.P.S. Lemos., Ann. Phys. 350, 454 (2014).